
Chapter 7

Indiana Bicycle and Pedestrian Facility Planning and Development Plan

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Introduction

Bicycle and pedestrian facilities are gradually becoming an integral part of the transportation network in Indiana. For the most part, the pedestrian and bicycle modes have been neglected components of the total transportation system. Valued for their potential health benefits and positive effects on air quality improvements, walking and biking now represent the chief non-motorized forms of travel available for both utilitarian and recreation purposes. As alternative modes of travel, facilities for walking and/or bicycling are effective means of attaining social, environmental, land use and energy conservation goals.

Planning for bicycle and pedestrian facilities is a relatively new function within the Indiana Department of Transportation (INDOT). Historically most bikeway and pedestrian-related planning has been conducted at the local level in Indiana. This element of the statewide multimodal transportation plan will describe the current bicycle and pedestrian systems, highlight the various federal programs helping to establish a direction for bicycle and pedestrian planning, and discuss state-level planning for bikeways and pedestrian facilities. Recommended INDOT actions will be featured in this element as well.

National Policy

Support for state-level bikeway and pedestrian facility planning is provided in several national policy statements. The National Transportation Policy statement issued by the U.S. Department of Transportation (DOT) in 1990 titled Moving America states:

"It is Federal transportation policy to: Promote increased use of bicycling, and encourage planners and engineers to accommodate bicycle and pedestrian needs in designing transportation facilities for urban and suburban areas."

In the 1991 transportation appropriations act, Congress directed the U.S. DOT to conduct a national walking and bicycling study, asserting that:

"Opportunities for bicycling and walking must be enhanced if their full potential to reduce pollution, congestion and energy consumption is to be realized and the safety of non-motorized users is to be enhanced."

In 1991, Thomas Larson, former Administrator of the Federal Highway Administration (FHWA) stated:

"The FHWA is committed to working with the States to encourage their (non-motorized modes) use and make them safer...Bicyclists and pedestrians are legitimate users of the transportation system, and FHWA has a responsibility to provide for their transportation needs. I am specifically asking that the field offices ensure that full consideration is given to the safe accommodation of bicycle and pedestrian traffic on all Federal-aid highway projects."

Rodney Slater, the present FHWA administrator, issued an updated bicycle and pedestrian statement in May 1994. His memorandum reads:

"...The ISTEA requires the development of statewide and metropolitan transportation plans. The inclusion of bicycle and pedestrian elements in these transportation plans is essential..."

Finally, both the 1981 and 1991 editions of the American Association of State Highway and Transportation Officials (AASHTO) Guide to the Development of Bicycle Facilities have included the following AASHTO policy statement:

"To varying extents, bicycles will be ridden on all highways where they are permitted. All new highways, except those where bicyclists will be legally prohibited, should be designed and constructed under the assumption that they will be used by bicyclists."

ISTEA Bicycle and Pedestrian Mandates

ISTEA is having a profound effect on the way state and local governments address transportation issues. The emphasis on intermodalism has resulted in considerable attention for non-motorized modes of transportation, such as walking and bicycling. A high degree of flexibility under ISTEA has enabled states and Metropolitan Planning Organizations to fund a wide range of transportation projects and programs, including those aimed at increased bicycling and walking. A few specific citations follow.

Section 1025 of the ISTEA, "Statewide Planning", amends Section 135 of Title 23, United States Code (U.S.C.) as follows:

"Subject to section 134 of this title, the State shall develop transportation plans and programs for all areas of the State. Such plans and programs shall provide for the development of transportation facilities (including pedestrian walkways and bicycle transportation facilities) which will function as an intermodal State transportation system."

In addition, an amendment under Section 1025 of the ISTEA, 23 U.S.C., calls for each state to establish and maintain a continuous transportation planning process that, at a minimum, considers:

"...Strategies for incorporating bicycle transportation facilities and pedestrian walkways in projects where appropriate throughout the State."

Final regulations for implementing the metropolitan area and state requirements pertaining to transportation plans and programs were published in the October 28, 1993 *Federal Register* by FHWA and the Federal Transit Administration (FTA). These regulations are found in 23 CFR Part 450. Subsection 23 CFR 450.214 stipulates that the statewide plan shall:

"...Contain, as an element, a plan for bicycle transportation, pedestrian walkways and trails which is appropriately interconnected with other modes."

Subsection 23 CFR 450.216 concerning the Statewide Transportation Improvement Program (STIP) states that it shall:

"...Contain all capital and non-capital transportation projects (including transportation enhancements, Federal lands highway projects, trails projects, pedestrian walkways, and bicycle transportation facilities), or identified phases of transportation projects..."

Federal Programs Affecting Bicycle and Pedestrian Planning

Several programs originating at the federal level are having a profound effect on planning for pedestrian and bicycle travel. Not only is a general direction provided to guide related efforts, but substantial funding is being made available for certain types of qualifying projects.

In 1991 Congress directed the U.S. DOT to conduct a national walking and bicycling study. The purposes of the study included determining levels of biking

and walking and identifying why they are not better used for transportation; developing a plan for increased use, better safety and the resources necessary to successfully implement the plan; determining the full costs and benefits; evaluating successful programs around the world to determine their applicability in the U.S.; and developing an action plan with a timetable and budget for implementing the plan.

The National Bicycling and Walking Study - Transportation Choices for a Changing America was released to the public in April 1994. It established the following goals:

- "To double the current percentage (from 7.9% to 15.8%) of total trips made by bicycling and walking; and
- To simultaneously reduce by 10.0% the number of bicyclists and pedestrians killed or injured in traffic crashes."

A creation of ISTEA, the Transportation Enhancement Activities (TEA) Program has provided a powerful impetus for a variety of alternative transportation-related work around the country. Indiana receives approximately \$10.0 million each year to fund ten (10) specific activities listed in the legislation. Two of those relate directly to pedestrian and bicycle facility improvements. Facilities for bicycles and pedestrians, and preservation of abandoned railroad corridors (including conversion to trail uses) are both eligible activities that can be funded with TEA money. For approved projects the program will provide up to 80.0% of costs for construction or purchase of right-of-way.

Applications are submitted annually by Indiana jurisdictions for review and approval. In fiscal 1994, INDOT in cooperation with the Department of Commerce, the Department of Natural Resources, the Metropolitan Planning Organization Council, and the Governor's Office approved sixty-five (65) projects totaling approximately \$17.7 million in federal funds. Governor Bayh announced the successful projects in September and October of 1993. A report from the Rails-To-Trails Conservancy estimates that, nationwide, close to 50.0% of all TEA funds spent have been used for bicycle, pedestrian and trail projects.

The Congestion Mitigation and Air Quality (CMAQ) Program is another new category of funds established by ISTEA. Funds are to be used in metropolitan areas that have not yet attained the clean air standards set by the amended Clean Air Act. Bicycle and pedestrian projects are on the list of transportation control measures judged effective in contributing to improved air

quality. In Indiana only three (3) areas qualify for CMAQ funds because of their air quality: Northwestern Indiana, the Louisville, Kentucky area, and Evansville. The South Bend-Elkhart area, formerly a marginal non-attainment area, was successful in using the CMAQ Program to fund a bicycle-related improvement. Phase 3 of the Goshen bikeway network will be completed with CMAQ funds.

The Americans with Disabilities Act (ADA) has significant implications for the provision and design of pedestrian facilities. Access to transit services, access to public buildings and facilities, as well as private businesses, and the location and design of sidewalk-type facilities are directly affected by ADA requirements. Because the ADA is law, improvements required to comply with the ADA can be enforced.

Some improvements designed to meet ADA mandates to accommodate wheelchairs and limited pedestrian abilities are beneficial to bicycling as well. Curb ramps, design of sidewalk spaces in shopping areas, location of businesses close to streets rather than set back separated by seas of parking, and walkway surface treatments are examples of enforceable ADA considerations that could be conducive to bicycling. Other than small children, however, INDOT does not advocate the use of sidewalks by bicyclists.

The National Recreational Trails Fund is a small funding source created specifically for the development of motorized and non-motorized recreational trails, and subject to annual appropriations by Congress. In FY 1993, the first year of funding, \$7.5 million was appropriated. No funds were appropriated in FY 1994 or in FY 1995. In Indiana, the Department of Natural Resources administers the National Recreational Trails Fund.

Present Bicycle and Pedestrian Environment

The Hoosier Bikeway System

The only statewide network of bikeways in Indiana is the Hoosier Bikeway System. This system presently consists of eleven routes especially suitable for bicycle touring and recreational riding. The Indiana Department of Natural Resources (DNR) created the Hoosier Bikeway System by connecting eighteen of the state's recreational properties, federal sites and local parks via "lightly traveled roads through quiet towns and beautiful countryside." The roads were selected to provide a combination of good riding surface, safety, services and scenery, according to a DNR publication. Individual routes are distinguished by pavement markings and trailhead signs at staging areas and at the ends of each bike route. Individual route guidebooks are sold by the DNR to provide detailed maps and general information such as direction of travel, distances and essential services.

The Hoosier Bikeway System serves many of Indiana's population centers: Indianapolis, Ft. Wayne, Evansville, Lafayette and Richmond. Most of the system, however, is devoted to bicycle travel through rural Indiana. Thirty-one counties are accessible via the system which is made up of state highways, county highways and some city streets. Total length of the Hoosier Bikeways System is about eight hundred (800) miles. Of regional significance, the individual routes range in length from forty-nine (49) to eighty-nine (89) miles. **Figure 1** presents the Hoosier Bikeway System.

National Routes and Trails of Statewide Significance

The map also illustrates part of the Bikecentennial Route which crosses the northern third of Indiana, from Allen County in the east to Newton County in the west. Part of the nation's Bicentennial celebration, the Bikecentennial Route was designated in 1976 to facilitate cross-country bicycle touring and encourage long distance biking. This route is confined to existing roadways in Indiana. The route chosen in 1976 was based on suitability for bicycling at that time. No changes to that route have been proposed in Indiana, however, a reevaluation is needed to confirm that continued designation is warranted.

Another trail of potential importance is the American Discovery Trail (ADT). In 1991, with financial assistance from several private companies, the American Hiking Society designated this trail which starts at Point Reyes National Seashore in California and ends at Cape Henlopen State Park in Delaware. Between Denver and Cincinnati the ADT splits into two roughly parallel trails across the Midwest. Both branches pass through Indiana, as illustrated in **Figure 1**.

As proposed, the majority of the Trail would be suitable for bicycling and equestrian use as well as walking or hiking. Much of the distance in Indiana features travel on paved roadways. Converted railbeds are used where available as multimodal segments of the Trail. For example, the northern branch would route travelers over the Cardinal Greenway. The southern branch of the Trail, however, incorporates the Knobstone Trail which is designed exclusively for hiking. Alternative routing will need to be selected for cyclists to bypass this portion of the ADT.

The Cardinal Greenway

The Cardinal Greenway is probably the most important facility of its type in the state. In fact, it is the largest private rail-trail project in the United States. A joint effort involving citizens and businesses will convert miles of abandoned

railways into rail-trails. Aided by funding through the INDOT's Transportation Enhancement Program, the Cardinal Greenway is intended to provide "scenic, non-motorized routes for exercise and recreation, while preserving an important part of Indiana's history", according to the non-profit Cardinal Greenway, Inc., owners and managers of the trail.

The Cardinal Greenway will cover fifty-nine (59) miles, connecting the eastern Indiana communities of Marion, Muncie and Richmond (see **Figure 1**). The trail follows the railroad right-of-way originally used by the Cincinnati, Richmond and Muncie Railway. Trains discontinued travel along this line in the mid-1980s. Like most rail-trails, the Cardinal Greenway will offer natural habitat for wildlife and a natural setting for environmental education. Anticipated users of this facility include walkers, runners, bicyclists, equestrians, cross-country skiers, wheel chair users, skaters and hikers.

The B&O Trail

Another trail of statewide significance is the B&O Trail. This proposed trail would connect the Indianapolis urban area with one of Indiana's premier outdoor recreation areas. Shades State Park, Turkey Run State Park and Raccoon Lake State Recreation Area are located near the western end of the proposed trail. Extending for fifty-six (56) miles, the B&O would begin at Speedway in Marion County and end at Bloomingdale in Parke County, passing through Hendricks and Putnam Counties along the way. The map illustrates the location of the proposed B&O Trail.

Like the Cardinal Greenway, the B&O Trail would use funds made available through INDOT's Transportation Enhancement Program. However, citizen support for the project is even more essential for the success of this project. So far all four county boards have joined in support of the rail-to-trail conversion, which will establish a linear multi-use corridor for bicycling, pedestrian travel, habitat preservation and nature study. Rail Corridor Development Incorporated (RCDI) is the nonprofit corporation responsible for purchasing and developing the trail. Pointing to numerous successful rail-to-trail projects in nearby states, RCDI promotes the proposed B&O Trail and its potential economic boost to communities in the vicinity due to trail-related businesses.

Other Important Facilities

A number of other facilities of statewide significance are being considered. One would establish a future trail across the seven counties of northern Indiana. From Lake County to Steuben County, that trail would require preserving the abandoned Norfolk and Western Railroad right-of-way for a distance totaling

one hundred forty-four (144) miles. Portions of that corridor have reverted to adjacent landowners, however. INDOT and the two Metropolitan Planning Commissions operating in five of the affected counties would support the concept of such a trail.

Significant trail opportunities may exist along the Wabash River Heritage Corridor, which by definition refers to the strip of land in Indiana abutting the Wabash River, the Little River and the portage between the Little River and the Maumee River. In 1991, the Indiana General Assembly created the Wabash River Heritage Corridor Commission to "...promote the conservation and development of the natural, cultural, and recreational resources in the corridor by the exchange of information, establishment of common goals, and cooperative action of the people and governmental units along the corridor." Nineteen counties are included in the corridor. Although no plans exist at this time to establish a trail along the entire corridor, individual communities and a few counties are actively pursuing projects, and a forum exists to coordinate many of these individual efforts.

Other significant bicycle and pedestrian projects include: the Limestone Country Trail in Monroe County, a twelve (12) mile rail-to-trail conversion; the Whitewater Canal Trail, Indiana DNR's eight (8) mile trail in Franklin County; the Monon Trail in Marion and Hamilton Counties, part of which shares the old railroad right-of-way with an Indianapolis interceptor sewer line; and the thirteen (13) mile Sugar Creek Trail, a joint effort of the City of Crawfordsville and Montgomery County.

Activities in Indiana's Urbanized Areas

Throughout Indiana bicycle and pedestrian facilities have received increasing emphasis over the last two years. With the passage of ISTEA, urbanized areas found an unprecedented financial boost for non-motorized modes of travel at their disposal. Coupled with a stronger voice in local area transportation decisions, the MPOs embarked on a new course of bicycle and pedestrian facility planning and system development. The following highlights are drawn from summaries provided by Indiana's MPOs and direct contact with local bicycle and pedestrian planning activities.

Bloomington Urbanized Area

Bloomington is a bicycle and pedestrian-friendly community. The Bloomington Area Transportation Study, the local metropolitan planning organization, has found that over 10.0% of the population walks to work. The MPO also hired a firm to evaluate existing bicycling and pedestrian infrastructure

and to make recommendations for improvements to better facilitate bicycle/pedestrian travel.

The Bloomington Bicycle and Pedestrian Safety Commission published a safety-oriented map of preferred bike routes in the area. The Parks Master Plan identifies proposed linkages through town, and an effort is underway to obtain right-of-way in new developments to establish bikeways. The Public Works Department passed a "bicycle friendly" resolution that requires bicycling improvements to be considered in all road projects. When Sare Road was improved in 1994, \$60,000 was spent to add pavement width specifically to accommodate bicyclists.

Evansville Urbanized Area

Bicycle planning efforts in the City of Evansville and Vanderburgh County have been focused on recreation-oriented detached bike paths and trails. Though only a few miles exist, long term plans call for a forty-two (42) mile bicycle and pedestrian corridor to circle the urban area. The *Evansville Greenway Passage Master Plan*, completed in 1993, proposes to follow "the open space continuum created by the Ohio River and Pigeon Creek flood protection levees and the I-164 corridor". The Greenway Passage Plan creatively proposes phased development that combines Land and Water Conservation funds, Transportation Enhancement money and use of publicly-owned levee right-of-way. The project would not only enhance local recreation opportunities, it could also function as an alternative transportation corridor, reducing traffic congestion and vehicular emissions. No on-street bicycle lanes or designated bike routes are proposed in the Evansville area at this time.

Pedestrian needs are met in a variety of ways. The City of Evansville established a program that uses Community Development Block Grants to replace existing sidewalks not meeting present ADA standards. In addition, new residential and commercial developments within the Evansville must include sidewalks.

Ft. Wayne Urbanized Area

Bicycle and pedestrian facility planning in the Ft. Wayne metropolitan planning area is the responsibility of the Northeastern Indiana Regional Coordinating Council. Bikeways in this area are used primarily for recreational purposes, however, ordinances and planning initiatives encourage pedestrian and bicycle transportation for other reasons as well. There are 37.16 miles of bikeways in the Ft. Wayne area, including just over fourteen (14) miles of off-

street paths. Proposed bikeways would add nearly thirteen (13) miles of off-street facilities, plus four (4) miles of hiking trails not suitable for biking.

The most important bicycle/pedestrian development in the Ft. Wayne area is probably the twenty-five (25) mile Rivergreenway trail, which will pass through parts of Allen County, New Haven and Ft. Wayne. From Fox Island County Park area residents have direct access to Wabash Valley Route 3, part of the Hoosier Bikeway System. Though on-street bicycle routes are generally not emphasized, the Three Rivers Velo Sport Club annually publishes cycling suitability maps for paved local roads in Allen County and adjacent portions of surrounding counties.

An Allen County policy currently requires pedestrian/bicycle connections between residential areas and activity centers in all new developments where applicable. Later this year the new Allen County Code will "convert" this policy into a specific ordinance. Present ordinances also require sidewalks on at least one side of the street in practically all new subdivisions.

Indianapolis Urbanized Area

The Indianapolis Department of Metropolitan Development (the Indianapolis area MPO) is responsible for transportation planning throughout the Indianapolis area, including the Cities and Towns of Beech Grove, Lawrence, Speedway, Southport in Marion County; Carmel, Fishers and Westfield in Hamilton County; Greenwood, Whiteland and New Whiteland in Johnson County; Zionsville in Boone County; and portions of Hancock and Hendricks County. The MPO has maintained an active role in bicycle and pedestrian planning in the area, working with local implementing agencies as well as interest groups like the Mayors Bicycle Task Force and the Central Indiana Bicycle Association.

The City of Indianapolis currently maintains sixty-five (65) miles of signed on-street bike routes, plus a few miles of other biking facilities. As a result of a two year planning effort, the ten and a half (10.5) mile Monon Rail Corridor between 10th Street and the Hamilton County Line is being designed as a hiking and biking trail until it is needed for other transportation purposes. Work is expected to start in the Spring of 1995. In addition to the Monon Trail, pedestrian and bicycle-related improvements in other jurisdictions in the Indianapolis area have successfully applied for Transportation Enhancement funds.

A Bicycle User Map, developed in 1987 and reprinted in 1991, has been widely distributed through the Mayor's Bicycle Task Force. The MPO has

proposed locating secure bicycle lockers at Indianapolis "park-and-ride" locations, an innovative technique to "feed" transit routes in the area. The MPO has undertaken a comprehensive bicycle and pedestrian system plan for the metropolitan planning area. Intended to integrate bicycle and pedestrian facility planning with the traditional transportation planning process, the plan should be complete in December 1995.

Kokomo Urbanized Area

In Kokomo, the Governmental Coordinating Council is investigating initiatives to improve bicycle and pedestrian travel in the community. Thus far local bicycle and pedestrian planning has been focused on upgrading the existing system and on removing impediments to routine, non-recreational bicycle use. Though Kokomo has designated one recreational bike route, present efforts are not expected to result in dedicated bicycle paths or delineated bike lanes on the city's streets. Considerations aimed at constructing more sidewalks in the Kokomo-Howard County area are expected to be incorporated in the revised transportation plan now under development. The possibility of adding and improving sidewalks along all roadways in the built up parts of the urban area is being evaluated.

Lafayette-West Lafayette Urbanized Area

Concern for non-motorized modes of travel in Lafayette and West Lafayette is high. The Norfolk-Southern Corridor Study will examine potential non-vehicular reuses of the abandoned railroad corridor through downtown Lafayette. The old SR 26 Main Street bridge across the Wabash River is now locally owned and exclusively for the use of pedestrians, wheelchairs and bicycles. Parts of the Wabash River Heritage Trail (primarily a hiking facility) were completed in the Lafayette-West Lafayette area in a cooperative effort between the two cities and Purdue University. A series of trail projects along the river initiated before ISTEA are now being linked together. When complete, non-motorized travel will be possible from the Battleground Monument to Fort Ouiatenon, a distance of about thirteen (13) miles.

If enacted, the new "Unified Zoning Ordinance" drafted by the Tippecanoe County Area Plan Commission would provide a bonus to developers for bicycle parking. As proposed, *bicycle* parking could be substituted for a maximum of 5.0% of the minimum required off-street *motor vehicle* parking. An enclosed bike locker or five spaces in a bicycle rack would equal one parking space. Wabash Valley Routes 1 and 2 of the Hoosier Bikeway System routes meet at the historic Commandant's Home in West Lafayette. There are six and a half (6.5) miles of on-street bicycle lanes in Lafayette and West Lafayette.

Indiana-Louisville, Kentucky Urbanized Area

The Kentuckiana Regional Planning and Development Agency is responsible for transportation planning in the Southern Indiana counties of Clark and Floyd. In the fall of 1994, KIPDA adopted the Regional Bicycle and Pedestrian Plan. The plan, which is both policy and project oriented, is designed to be a comprehensive planning tool for the Louisville metropolitan planning area. A separate planning effort was conducted by the Southern Indiana Bicycle and Pedestrian Committee and separate policy and project recommendations were prepared. These, in turn, are designed to coordinate with those developed in the Kentucky counties across the River.

The proposed Ohio River Greenway, one of the most significant recommendations of the Plan, will pass through parts of three communities: Jeffersonville, Clarksville and New Albany. It will provide both walkways and bikeways. Aggressive sidewalk development policies, originated and adopted by the City of New Albany, are now recommended for the entire Southern Indiana area. "All new and substantially redeveloped commercial, industrial and residential developments within the urbanized area...whether incorporated or unincorporated, should include sidewalks along the lot frontage to abutting sites." The Plan also calls for a sidewalk network in the urbanized area, and essentially all roadways (except Interstates) are to include sidewalks where appropriate as an integral part of the transportation system. Improved or reconstructed streets and roads "...should be constructed to accommodate bicycles as an integral part of vehicular traffic, i.e. wide curb lanes, shoulders, signage and/or pavement markings...".

Eight (8) projects presently listed in the Louisville area's 1995-96 Transportation Improvement Program are recommended to have sidewalk and bicycle facilities added. "Share The Roadway With Cyclists" signs are to be erected along designated routes. Most of the existing thirteen (13) miles of bikeways in the area are designated routes on streets, while some separated bike paths or trails are found in Jeffersonville.

Muncie Urbanized Area

Formal bicycle and pedestrian planning has been conducted in the Muncie urbanized area since 1991, when the Delaware County Bike Route Task Force was formed through the efforts of the Delaware-Muncie Metropolitan Plan Commission. The task force has been primarily responsible for a policy and project oriented bikeways plan. Also in 1991, interest began to grow in the abandoned CSXT Railroad and the Cardinal Greenways bike path described earlier. In Delaware County the Cardinal Greenway will function as a principal

component of the bikeway system, covering approximately twenty-seven (27) miles and serving as a trunk line to which other bike routes or trails could connect.

Transportation planning in the Muncie area will continue to focus on meeting the needs of motorized travel, but the growing importance of bicycle and pedestrian needs is now recognized in the planning process. Along with specific project locations, the plan emphasizes education and safety for bicyclists and pedestrians. Pedestrian concerns are primarily addressed through policies promoting connectivity with transit stops and neighborhood facilities. Connectivity of sidewalks is being mandated in the Muncie area.

Northwest Indiana Urbanized Area

Northwestern Indiana focused its attention on preparation of a regional bikeway system plan. Conducting transportation planning for a three county area that includes over thirty municipalities, in March 1994 the staff of the Northwestern Indiana Regional Planning Commission (NIRPC) released the draft Regional Bikeway System map. The system is intended to "...connect points of interest, provide a transportation alternative and use the existing system of utility easements, railroad rights-of-way, and municipal and county thoroughfares".

Because of air quality concerns transportation control measures must be incorporated into the regional planning effort. Under the "Employer Commute Option" program (one of the control measures) work sites with 100 or more employees are among the locations the bikeway system attempts to serve, offering employees a transportation alternative.

Northwestern Indiana contains more miles of abandoned railroad than most parts of the state and leads the state in conversion to trail facilities. Rail-To-Trail projects fill a vital role in the regional bikeway system. The Cities of Hammond and Portage already feature some rail-to-trail facilities, and many more miles are in the planning stage. When complete, the Oak-Savannah and Prairie Duneland Trail, a rail-to-trail conversion, will extend for approximately twenty-two (22) miles between Griffith in Lake County to Chesterton in Porter County (see Figure 1). In addition, many flood control levees constructed in the area by the Army Corps of Engineers will include development of pedestrian/bikeways under the regional plan. Potential agreements with the Northern Indiana Public Service Company would also permit utility easements to be used for over one hundred four (104) miles of bikeways in the three (3) county area.

South Bend-Elkhart Urbanized Area

The Michiana Area Council of Governments (MACOG) began bicycle and pedestrian planning activities in the South Bend and Elkhart urbanized areas through research and establishing an inventory of current facilities. During the Spring of 1993 individual committees were created for route planning in the two counties. A public survey helped the committees draft these route plans to be incorporated in MACOG's 2015 *Long-Range Plan*. A suitability evaluation, now underway, will help solidify route selection for the final Regional Bicycle/Pedestrian Plan.

To help institutionalize consideration for non-motorized travel, MACOG's new "Priority Selection Process" awards *extra* points to transportation projects that feature items like bike lanes, wide shoulders, sidewalks and pedestrian or bicycle-actuated traffic signals. Such considerations raise the priority of projects competing with other road and transit projects for funding in the South Bend-Elkhart area TIP.

Noteworthy trail and bikeway projects in the South Bend-Elkhart metropolitan area include one of the first locally-initiated bikelanes along a state highway in Elkhart, rehabilitation of an exclusive bicycle/pedestrian bridge across the St. Joseph River, and purchase of right-of-way for the seventeen (17) mile Pumpkinvine Nature Trail from Goshen to Shipshewana. Using the existing East Race Bicycle Path in South Bend and planned connections to Mishawaka, potential exists to extend four and a half (4.5) miles north along an abandoned railroad bed to Michigan's Blossomland River Trail, creating a thirty-five (35) mile bi-state trail linkage with Benton Harbor, Michigan.

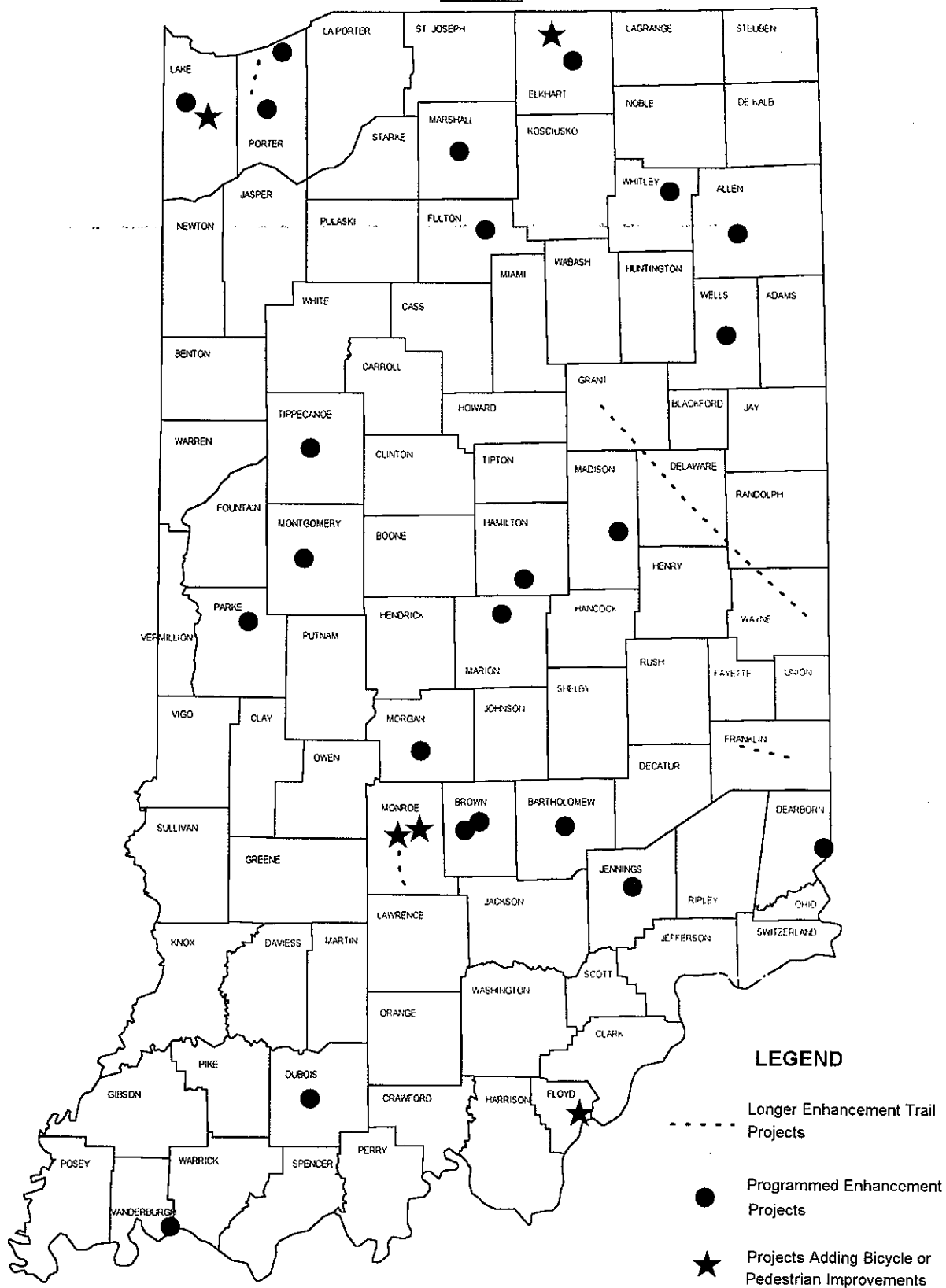
State of Indiana Bicycle and Pedestrian Planning

Current Projects Involving Bicycle and Pedestrian Improvements

Projects designed for bicyclists and/or pedestrians are occurring across the state of Indiana. As the administrator of the Transportation Enhancement Program, INDOT has participated in a number of locally initiated projects. The State of Indiana is also taking the lead in several multi-use trail projects. The Department of Natural Resources has been the principle state agency involved.

As of September 1994, there were twenty-five (25) "Enhancement" projects listed in the Department's production schedule. Most of these are pedestrian/bicycle trails, but the list also includes improvements intended to enhance the pedestrian environment, a pedestrian bridge, purchase of right-of-way for trail facilities, rail-to-trail conversions, and a fitness and nature trail for the blind. Figure 2 indicates the location of these projects.

Figure 2



Prepared by: INDOT, Transportation Planning Division, 1994.

BICYCLE AND PEDESTRIAN IMPROVEMENT PROJECTS IN INDIANA

INDOT has added provisions to some highway projects to accommodate bicyclists and pedestrians. These projects may feature widened shoulders, sidewalks, large box culverts, or other improvements. It is noteworthy that these improvements are generally funded as part of the road project--without special funds dedicated to pedestrian or bicycle-related facilities. The Department reasons that offering an alternative means to travel safely may encourage increased walking and bicycling, and reduce traffic demand on the existing transportation network. Health and environmental reasons only compound the dividends of non-motorized travel.

Several State Highway projects could feature bicycle or pedestrian improvements. These are depicted in **Figure 2** and include the following:

1. Widened paved shoulders along SR 120 and a widened through lane at Middleton Run Road in Elkhart;
2. New sidewalk installation along SR 311 in New Albany;
3. Two box culverts at abandoned railroad rights-of-way beneath U.S. 30 to accommodate two multi-use trails in Lake County;
4. Widened paved shoulders along SR 46 from Ellettsville to SR 37 in Monroe County;
5. Widened curb lanes along SR 46 in Bloomington; and
6. Pavement rehabilitation on U.S. 231 to accommodate bicycles, consistent with West Lafayette's bicycle and pedestrian plans.

The Pre-Engineering and Environment Division is responsible for defining the scope of INDOT projects. Under guidelines now being prepared, all projects being "scoped" by the Pre-Engineering Section will consider bicycle accommodations. In addition, projects such as the bicycle/pedestrian improvements listed above were added after development began. Bikeway and pedestrian plans developed locally will be consulted to ensure that state projects do not conflict with local plans.

Attitudes Towards Bicycling and Walking In Indiana

Bicycling and walking have traditionally been viewed as recreational in nature. Relatively few trips to the store, the office or to the plant have been bicycling trips or trips made on foot. According to the 1990 Nationwide Personal

Transportation Study (NPTS), 7.2% of all trips are currently made by walking, while 0.7% of trips are made on a bicycle. Until ISTEA, most bikeway planning was conducted by the Parks Department, and walking was a means to get to the car or a way for children or the disadvantaged to travel. Those views are changing, nationally and in Indiana.

INDOT wishes to broaden the purposes of bicycling and walking. Greater emphasis on non-motorized travel modes could substantially improve traffic flows, reduce traffic noise and generally improve air quality. Bicycling and walking are especially suitable for trips under two (2) miles, which comprise 40% of all travel according to the NPTS. INDOT will emphasize bicycling and walking as viable forms of transportation, with a focus on travel for utilitarian purposes. The Departments of Natural Resources and Commerce look upon bicycling and walking more in terms of recreation and community development that can enhance livability and boost tourism within the Hoosier State. INDOT supports non-motorized transportation improvements that also offer an attraction to tourists.

INDOT's Work Program Element HPR-PL-445

Under the annual Highway Planning and Research (HPR) program for fiscal year 1995 the Indiana Department of Transportation has added a new element to conduct planning related to bicycle and pedestrian concerns. A complete description of Work Element 445 appears in the HPR document.

The role of pedestrian and bicycle coordination involves a variety of responsibilities. Associated tasks have included the following: contacts with locally-based interest groups; attendance at meetings around the state; research on topics of specific interest to the pedestrian and bicycling community; coordination with non-motorized transportation committees formed by some MPOs; a focus on the Transportation Enhancement Program which will fund numerous bike and trail facilities; and a focus on rail-to-trail conversions within the state.

Reasonable design standards with an emphasis on safety need to be established. Participation in the effort would fall under Element 445. Ongoing work under this element will also include maintaining coordination with interest groups and pedestrian and bicycle planning committees, and attending meetings around the state for purposes of information exchange and coordination. A special focus on rail-to-trail conversions is expected to continue and grow.

Development of a comprehensive statewide system plan would require preparation of an accurate inventory of existing bikeways and hiking trails. Opportunities and barriers to bicycle and pedestrian travel should be identified.

A map depicting existing, planned and recommended links for a statewide plan would be essential as would a system for reviewing and objectively rating potential facilities for inclusion in the statewide plan.

Work Element 445 would support a consultant-assisted effort to define existing and committed routes/trails and those suitable for a statewide bicycle-pedestrian system. The consultant would help identify potential routes and trails for future inclusion. Adequate public input would be a primary focus as would coordination with other state agencies.

INDOT's Policy on Bicycle and Pedestrian Facilities

As interest in bicycle and pedestrian travel grew it became clear that a statewide bicycle and pedestrian plan would be necessary. A statewide plan requires policies and strategies to guide INDOT's decisions and to serve as a basis for state legislation to help establish and maintain bicycle and pedestrian facilities. A committee with private interest group and interagency participation was formed to develop policies and strategies and to review and update the plan.

INDOT's policy toward bicycle and pedestrian transportation was created in a joint effort involving the Department of Commerce, the Department of Natural Resources, the Indiana Bicycle Coalition, the Hoosier Rails-To-Trails Council and INDOT. After careful deliberation, several discussions and internal review the following policy statement emerged:

"INDOT will support non-motorized modes of travel as a means to increase system efficiency of the existing surface transportation network, reduce congestion, improve air quality, conserve fuel and promote tourism benefits. INDOT will remove unnecessary barriers to pedestrian and bicycle travel."

The committee that devised the policy also prepared a range of supporting strategies designed to further Indiana's progress toward improved pedestrian and bicycle transportation. The strategies, along with a description of the policy planning process, appear in the first chapter of *Transportation In Indiana: Multimodal Issues, Policies and Strategies*. The interagency committee will be called upon to review and update the bicycle and pedestrian element of the plan. Indiana's metropolitan planning organizations have been encouraged to join the interagency committee and participate in this process.

The Indiana Trails 2000 Program

The Indiana Trails 2000 Program is a comprehensive effort by the Indiana Department of Natural Resources (DNR) to define linear recreation corridors

throughout the state. The mission of the program is "to provide direction for trail development efforts in Indiana at the local, regional and state levels". The state trails plan is intended to be a resource that is useful not only to the DNR, but also to other agencies and trail advocates. According to the DNR, the plan is not a trail users guide, rather it is a guide for trail providers developed by trail users.

The planning process began in January of 1993. Through a series of meetings and mailings, members of the planning group developed and prioritized goals and objectives for the state trails plan. Participants in the Trails 2000 Program include a wide array of interest groups and enthusiasts. Among those attending meetings and helping to form alternatives and recommendations to benefit trail groups are: 4-wheel drive riders, equestrians, bicyclists, off-road motorcyclists, snowmobilers, all-terrain vehicle riders, water trail users, users with disabilities, hikers and walkers, environmentalists and conservationists, and local park/recreation agency representatives. The goals identified by the Trails 2000 program read as follows:

1. Acquire more land for trail use;
2. Develop trail networks which allow for multiple uses and promote alternative transportation;
3. Set and adhere to trail design, construction and maintenance standards;
4. Provide information on trail systems; and
5. Ensure long-term trail management planning.

The focus of the Trails 2000 effort is much broader than that characterizing the bicycle and pedestrian element of the statewide transportation plan. Though INDOT's emphasis is different, the Department supports the Trails 2000 effort and will continue to participate in the Indiana Trails 2000 Program. The final Indiana Trails 2000 report is expected in March of 1995. Staff responsible for the state trails plan participated with INDOT in developing the bicycle and pedestrian policy and strategies and serve on the interagency committee. As a way of reinforcing both agencies' efforts to improve bicycle and pedestrian transportation in the state, it is INDOT's intention to increase cooperation with the Department of Natural Resources where mutual interests in bicycling and pedestrian activity exists.

Recommendations For Bicycle and Pedestrian Transportation

The recommendations that appear here are general in nature and require discussion before implementation details are developed. Additional recommendations may be appropriate. Each recommendation is followed by a list of action steps. In some instances, measures are being applied on an *ad hoc* basis that relate closely to the actions listed.

- **Modify the Procedural Manuals to Help Implement Policies and Strategies**
 - Use suitable opportunities at the district level to widen the paved surface during maintenance resurfacing;
 - Modify or improve road shoulders for safe bicycle travel;
 - Improve project scoping to integrate bicycle and pedestrian considerations from the beginning of highway and transit projects;
 - Establish contacts with local pedestrian and bicycle groups to improve planning, scoping, environmental analysis and design; and
 - Where reasonable or to comply with local ordinances, install sidewalks in urban areas as part of state highway expansion projects.
- **Support Rails-To-Trails Projects**
 - Alleviate land owners' concerns over liability where bicycle or pedestrian facilities are proposed;
 - Improve the awareness and understanding of rail-to-trail benefits in rural and small town Indiana;
 - Fully consider rail-to-trail conversions when highway bridge removals are planned over abandoned railroads;
 - Integrate the abandoned railroad advisory committee into the decisionmaking process on potential rail-to-trail projects; and
 - Work more effectively within the Interstate Commerce Commission's (ICC's) railroad abandonment process.

- **Develop or Adopt Reasonable Standards for Pedestrian and Bicycle Facilities**
 - Adhere to the 1991 AASHTO and the FHWA's 1994 guidelines for any INDOT bicycle or pedestrian projects;
 - Integrate the Americans With Disabilities Act (ADA) standards for accessibility;
 - Add or modify pedestrian and bicycle standards as necessary for Indiana conditions;
 - Disseminate standards to all planning and implementing agencies; and
 - Establish uniform signage and striping of bike routes and bike lanes around the state.

- **Support Bicycle Route Suitability Evaluation and Mapping**
 - Actively support the cooperative project involving the Indiana Department of Natural Resources and the Indiana Bicycle Coalition;
 - Evaluate both lane width and roadway configuration;
 - Consider current and projected traffic volumes and proportion of trucks;
 - Adequately research proximity to important amenities and services;
 - Inventory utility rights-of-way and flood control levees that are suitable for pedestrian or bicycle facilities; and
 - Emphasize the importance of connectivity between bike routes when evaluating suitability of roads for bike route designation.

- **Support Techniques That Enhance Bicycling and Pedestrian Transportation**
 - Collect and disseminate effective local ordinances, subdivision regulations and zoning provisions for Indiana communities to emulate;
 - Research successful local programs in other states that may provide useful techniques for application in Indiana, and;

- Evaluate relevant legislation from other states that would enable the state or local governments to improve non-motorized travel in Indiana;
 - Increase signage along roadways to inform motorists and cyclists where they are encouraged to share the roadway; and
 - Support education and public relations efforts that advance safe pedestrian and bicycle transportation.
- **Encourage Adequate Sidewalks and Reasonable Pedestrian Access**
 - Stress the importance for business, residential, government, transportation and recreational facilities;
 - Implement through the plan review process on projects involving state transportation facilities or using federal or state transportation funds; and
 - Emphasize continuity, connectivity and pedestrian circulation.

INDOT has an opportunity to take a proactive stance on the issue of bicycle and pedestrian transportation. Indiana can join other nearby states in better accommodating non-motorized travel by offering not only a transportation alternative for short trips, but also a form of recreation that can draw tourists to the Hoosier State. As demand for bicycle and pedestrian facilities grows, Indiana communities, state agencies, and interest groups will need to cooperatively respond. The policies and plans of the Indiana Department of Transportation will provide effective guidance coupled with support for meaningful bicycle and pedestrian improvements.